Profiles of Violent Youth: Substance Use and Other Concurrent Problems

ABSTRACT

Objectives. This study examined the prevalence of various violent behaviors among high school–age adolescents, the co-occurrence of teenage violence with other public health problems, and gender differences in violence.

Methods. Longitudinal data for more than 4500 high school seniors and dropouts from California and Oregon were used to develop weighted estimates of the prevalence of violent behavior and its co-occurrence with other emotional and behavioral problems.

Results. More than half the sample had engaged in violence during the last year, and one in four had committed predatory violence. Boys were more likely than girls to engage in most types of violence, but both were equally prone to violence within the family. Violent youth were more likely than their peers to have poor mental health, use drugs, drop out of school, and be delinquent. Violent boys were more likely than violent girls to commit nonviolent felonies and sell drugs, but less likely to have poor mental health or become a parent. Prevalence estimates for violence co-occurring with three or more other problems ranged from 4% to 21%.

Conclusions. Teenage violence typically coexists with additional emotional and behavioral problems. Programs must consider the broader public health context in which violence occurs. (*Am J Public Health.* 1997;87:985–991)

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Introduction

To develop viable strategies for preventing or curbing youth violence, we need to understand the scope of the problem and its co-occurrence with other behaviors that concern the public health and policy communities.[1–3] Several studies provide estimates of general delinquency among youth,[4–6] but research focusing only on violent behavior is sparse and is often based on special populations: youth in the criminal justice system,[7] gangs,[8] inner-city youth,[6,9] high school students,[10,11] or White middle-class males.[12] Because violent delinquents may differ from nonviolent delinquents in important ways,[13,14] we need to explicitly disentangle violence from other types of delinquent behavior and to assess its prevalence in more general populations.

We also need to understand the degree to which violence and other problems are linked. Prior research indicates that general delinquency may occur as only one of a constellation of problem behaviors,[2,4,15] but there is little agreement about how many youth "specialize" in a single high-risk behavior vs multiple problem behaviors. Dryfoos[5] has suggested that as many as 25% of the nation's adolescents participate in multiple problem behaviors, including serious delinquency, school failure, substance use, and early sexual activity. In contrast, Elliot et al.[4] estimated that less than 1% of 15- to 21-year-olds were seriously delinquent in 1980, used two or more substances simultaneously, and suffered from mental health problems. And although most studies agree that more males than females are delinquent, substantial disagreement persists over the magnitude and nature of this difference.[16–18]

Our study examines the prevalence and behavioral context of multiple types of violent behavior in a sample of high school seniors and dropouts originally drawn from 30 middle and junior high schools in California and Oregon. Using liberal and stringent definitions of violence, we explore the correlation between violent behavior and other public health and criminal justice problems. We also examine gender differences in prevalence rates and estimate the extent to which youth engage in multiple problem behaviors.

A key contribution of this study is that it overcomes the underreporting bias associated with prevalence rates that are derived from school-based samples of adolescents.[11,19] Not only does our sample include a substantial proportion of school dropouts, but we have compensated for any remaining sample attrition by developing weights that allow us to represent the original 7th-grade cohort in the 30 schools. Hence, our estimates have been adjusted for nonresponse due to absenteeism, moving, dropping out of school, or refusal to respond to the survey.

Methods

Data Source

We use a longitudinal database of more than 4500 high school seniors and dropouts (17- to 18-year-old adolescents) from urban, suburban, and rural communities in California and Oregon. The 30 middle schools they originally attended were chosen to represent a broad spectrum of communities, socioeconomic status, and racial and ethnic composition.[20]

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TABLE 1—How Sample Weights Reduce Attrition Bias (Comparison of True Values with Weighted and Unweighted Estimates from Analysis Sample): Longitudinal Data for Students and High School Dropouts, California and Oregon

Variable Measured during Grade 7	Actual Value[a] (n = 6527)	Unweighted Value[b] (n = 4586)	Weighted Value[c] (n = 4586)
Self-reported grades, mean	2.88	3.00	2.86
Male, %	52.0	46.4	52.3
Ever used alcohol, %	74.4	73.2	74.7
Ever used cigarettes, %	50.2	44.8	49.7
Ever used marijuana, %	20.1	14.6	19.6

Note. Hosmer-Lemeshow goodness-of-fit $\chi^2(8) = 11.9$; $P = .156$.
[a]Actual value for 7th-grade cohort (30 schools).
[b]Unweighted value obtained for cohort members who responded to 12th-grade survey.
[c]Weighted value obtained for cohort members who responded to 12th-grade survey.

Nine schools had minority populations of 50% or more; 18 drew from neighborhoods with household incomes below the median for their state. The participants reflect this diversity. Of the 4586 respondents, 54% are female and nearly 30% are members of minority groups—71% self-classified as White, 8% as African-American, 9% as Hispanic, 9% as Asian, and the rest as multiethnic or Indian. Self-report data were collected for all panel members during grades 7, 8, 9, 10, and 12. Despite high mobility in the sites, 70% of the baseline sample was retained by grade 12. This study uses 12th-grade data from surveys that were self-administered in 1990, when a wide range of information about violent activity and other public health problems among these youth was obtained.

Measures

The study included measures of violent behavior, substance use, school status, academic orientation, mental health, and delinquency.

Respondents were asked about past-year involvement in gang fights, use of force or strong-arm methods to get money or things from people, carrying a hidden weapon other than a plain pocket knife, attacking someone with the idea of seriously hurting or killing that person, hitting or threatening to hit someone in their family, and hitting or threatening to hit someone *not* in their family. We aggregated these six items to form four, more general, binary measures of violent activity: any violence, persistent hitting, serious (predatory) violence, and violent behavior that reflects both persistence and variety. Thus, we can examine prevalence rates for each of six specific types of violence and compare rates across more and less serious forms of violent behavior.

The most inclusive measure, *any violence,* is equal to 1 if respondents said "yes" to any of the six items. *Persistent hitting,* or relational violence,[2] involves hitting family or nonfamily members three or more times in the past year. *Serious violence* includes gang fights, the use of strong-arm methods, carrying a hidden weapon, and attacking with intent to hurt or kill (analogous to the pattern of "predatory violence" discussed in Tolan and Guerra[2]). The least inclusive measure, *multiple and persistent violence,* involves engaging in two or more different types of violent behavior at least three or more times in the past year.

The data contain multiple measures of drug and alcohol use: weekly use of alcohol, cigarettes, or marijuana; daily smoking; binge drinking (defined as having had five or more alcoholic drinks on at least one occasion in the last month); lifetime use of cocaine and other illicit drugs; and polydrug use (any use of alcohol or cocaine with other drugs in the past year).[21,22] We classified respondents as problem drug users if they reported any polydrug use in the past year, weekly marijuana use, any binge drinking, or daily cigarette use. Drug sellers reported selling any illicit drugs in the past year.

Items tapping serious and minor nonviolent delinquency in the past year included felony offenses (arson or acts of felony theft, such as breaking into a house or school, stealing a motor vehicle, or fencing stolen goods) plus misdemeanor and status offenses (minor theft, public disorder, begging, obscene phone calls, joyriding, shoplifting, truancy, and running away from home overnight).

Our measure of academic orientation combines grades in middle school (mostly A's to mostly F's) with plans for future schooling (to graduate from high school, attend trade school, go to college or graduate school, etc.). We designated the bottom third of the scale's distribution as having low academic orientation. We used two measures of school-dropout status. The first defined dropouts as out-of-school respondents who had not obtained a high school diploma or its equivalent (n = 482; 10.5% of the sample). The second measure added to this set individuals enrolled in continuation or special schools (n = 744; 16.2% of the sample); the problem-behavior profiles of continuation school enrollees are more like the profiles of dropouts than those of regular school enrollees.[23] Respondents were classified as having poor mental health if their score on the five-item mental health index (MHI-5)[24] fell within the "warning zone" developed in the RAND Health Insurance Experiment.[25]

Statistical Methods

Approximately 11% of the sample had dropped out of school before graduation and were located through extensive tracking methods. Hence, our estimates of violent behavior are based on students who stayed in school as well as those who did not, thereby reducing the underestimation problems associated with samples based solely on enrolled students.[19] However, although we retained about 70% of the original baseline sample at grade 12, the 30% who were lost were more likely to have manifested early deviant behaviors than the sample stayers.

To further reduce bias associated with sample attrition over time, we developed sample weights that allowed us to provide estimates representative of all the original 7th-grade respondents (almost the entire cohort in each school). We used logistic regression to create predicted probabilities of responding to the 12th-grade survey that were derived from 7th-grade information about each 7th-grade respondent, including race, gender, family structure, deviance, substance use, and grades. Table 1 compares the weighted and unweighted estimates of 7th-grade drug use, school performance, and gender (derived from the sample for this study) with the true values for each variable (derived from the original 7th-grade cohort). It shows that the weights removed

90% or more of the bias exhibited in the unweighted sample.

Using logistic regression to test for differences in rates of problem behavior across violence levels, we computed Huber variance estimates in the *Stata* program to gauge the statistical significance of differences in weighted means across groups. This procedure accounts for the clustering of observations within schools and provides consistent standard errors under conditions of unequal variances in the clusters.[26,27] *T* tests of logistic regression coefficients are reported for pairwise comparisons across groups (no violence, some violence, multiple and persistent violence).

Results

Prevalence of Violent Behavior

As Table 2 shows, more than half of the respondents (54%) had engaged in at least one type of violence in the past year, and about one in four (23%) had committed repeated acts of relational violence aimed at family members or acquaintances. One in four also engaged in at least one type of predatory violence, including carrying a hidden weapon, gang fighting, use of strong-arm methods, or assault. In addition, 14% of the sample attacked someone with the intention of hurting or killing that person; 13% carried a hidden weapon; and 8% were involved in a gang-related fight.

Males were between two and five times as likely as females to be involved in almost all types of violence, but the links between gender and violence were strongest for the more predatory forms of violent behavior. For example, 21% of boys but only 4% of girls reported carrying a hidden weapon. Similarly, 13% of boys were in gang fights, compared with 3% of girls. The one exception to this pattern of greater violence among males is that 26% of both groups reported hitting within the family.[28]

Profiles of Violent Youth

Table 3 indicates the proportion of violent youth who also exhibited other public health problems. It divides the sample into three groups, those who reported no violent behavior in the last year, those who reported some (but not multiple or repeated) acts of violence, and those who reported multiple and persistent acts of violence in the last year (our most stringent measure).

TABLE 2—Prevalence of Violent Behaviors among High School Seniors and Dropouts

Violence in Past Year	Proportion of Sample with Violent Behavior: Overall Sample, Weighted % (SE) (n = 4586)	Males Only, Weighted % (SE) (n = 2112)	Females Only, Weighted % (SE) (n = 2474)
Specific indicators			
Gang fights	8.1 (0.8)	12.5 (1.3)	3.1* (0.5)
Using strong-arm methods	3.0 (0.3)	4.8 (0.6)	1.1* (0.2)
Carrying a hidden weapon	13.2 (1.0)	21.2 (1.5)	4.4* (0.6)
Attacking someone with intention to hurt or kill	13.6 (0.9)	18.8 (1.5)	7.8* (1.0)
Hitting/threatening to hit someone in family	26.0 (1.0)	26.0 (1.0)	26.1 (1.3)
Hitting/threatening to hit someone *not* in family	43.3 (1.3)	55.8 (1.2)	29.6* (1.7)
Combined indicators			
Any violence[a]	53.7 (1.5)	64.9 (1.3)	41.5* (1.8)
Persistent hitting (relational)[b]	23.3 (1.0)	29.4 (1.3)	16.6* (1.2)
Serious violence (predatory)[c]	23.3 (1.4)	33.9 (1.8)	11.7* (1.2)
Multiple and persistent violence[d]	19.5 (1.1)	26.5 (1.2)	11.9* (1.1)

Note. The unweighted n is 4586 cases.
[a]Refers to any occurrence in the past year of one or more of the specific indicators listed above.
[b]Includes at least three instances of hitting or threatening to hit family or nonfamily members.
[c]Refers to any occurrence in the past year of one or more of the first four specific indicators (gang fights, strong-arm methods, carrying a hidden weapon, or attacking with intent to hurt or kill).
[d]Requires at least three instances in the past year of two or more of the six types of violence.
*Females significantly different from males; *t* test, $P < .0001$.

As Table 3 shows, violent adolescents were substantially more likely than their nonviolent peers to suffer from various other problems: different forms of substance use, nonviolent delinquency, low academic orientation, dropping out of school, and poor mental health. The links were strongest for persistently violent youth, with the sharpest differences between violent and nonviolent adolescents composed of serious delinquency (felonies) and drug selling. Compared with nonviolent youth, persistently violent teenagers can be characterized as follows:

- 10 times as likely to sell drugs
- 8 times as likely to commit nonviolent felonies
- between 2 and 3 times as likely to be weekly users of alcohol, cigarettes, or marijuana; to have tried cocaine; or to be polydrug users
- about 2 times as likely to be dropouts and to have low academic orientation
- about 1.5 times as likely to have poor mental health or to be problem drug users

The same patterns emerged for persistent hitters (not shown), with lower multiplier effects for felonies (3 times) and drug selling (4 times). There were no significant differences between violent and nonviolent groups for early parenthood, but persistently violent girls were almost twice as likely as nonviolent girls to have been pregnant.

Youth who engaged in some violence, but not repeated incidents of it, were also more likely to exhibit other public health problems than their nonviolent peers. However, as Table 3 shows, the multiplier effects for infrequently violent youth were considerably lower than those for persistently violent youth. Compared with nonviolent teens, the infrequently violent were only about 1.5 times as likely to drop out, to exhibit low academic

TABLE 3—Proportions of Violent and Nonviolent High School Seniors and Dropouts with Other Public Health Problems

		Some Violence[a]				Multiple and Persistent Violence[b]			
	No Violence, % (SE) (n = 2265)	% (SE) (n = 1511)	Ratio (Some/None)	Male, % (SE) (n = 795)	Female, % (SE) (n = 716)	% (SE) (n = 800)	Ratio (Multiple and Persistent/None)	Male, % (SE) (n = 527)	Female, % (SE) (n = 273)
Drug use									
Weekly drinking	6.9 (0.6)	10.0 (0.9)	1.4***	11.4 (1.2)	8.0 (1.9)	20.2 (2.1)	2.9***	22.4 (2.1)	14.9*** (1.9)
Weekly cigarette or marijuana use	15.8 (1.0)	25.7 (1.4)	1.6	24.3 (1.9)	27.6 (3.5)	39.5 (1.6)	2.5***	40.6 (2.2)	36.9 (3.7)
Problem use[c]	45.5 (1.4)	61.7 (1.6)	1.4***	60.2 (2.1)	64.0 (2.9)	76.6 (1.8)	1.7***	78.1 (1.8)	73.0 (3.3)
Polydrug use	18.8 (1.2)	31.0 (1.3)	1.6***	29.2 (1.8)	33.6 (3.2)	49.7 (2.6)	2.6***	49.4 (2.6)	50.3 (3.6)
Any cocaine use	13.6 (0.8)	21.6 (1.4)	1.6***	20.0 (1.5)	24.0 (2.3)	34.6 (1.6)	2.5***	33.5 (2.3)	37.3 (4.1)
Delinquent behavior									
Minor[d]	73.4 (1.1)	87.8 (1.3)	1.2***	88.3 (1.4)	87.2 (1.9)	96.5 (1.1)	1.3***	96.7 (0.9)	95.8 (1.5)
Felony[e]	5.9 (0.7)	18.8 (1.0)	3.2***	26.2 (1.7)	8.1*** (2.2)	44.0 (1.8)	7.5***	50.8 (2.5)	27.4*** (4.2)
Drug selling	2.8 (0.4)	8.8 (0.9)	3.1***	9.9 (1.2)	7.2 (1.5)	28.0 (1.8)	10.0***	30.4 (3.8)	22.0* (2.4)
Dropping out[f]	9.6 (1.3)	13.2 (1.3)	1.4**	11.3 (1.7)	16.0* (1.9)	20.8 (2.5)	2.2***	19.4 (2.8)	24.1 (3.4)
Low academic orientation[g]	20.2 (1.8)	29.3 (1.6)	1.4***	29.0 (1.6)	30.0 (2.0)	45.7 (2.7)	2.3***	46.9 (3.6)	42.7 (4.6)
Poor mental health[h]	25.6 (0.9)	32.6 (1.6)	1.3***	24.6 (1.6)	44.1*** (2.5)	39.6 (2.3)	1.5***	33.2 (2.2)	55.1*** (3.9)
Early parenthood	6.0 (1.0)	6.6 (0.9)	1.1	3.6 (1.0)	11.0*** (1.9)	8.5 (1.4)	1.4	6.4 (1.5)	13.6*** (2.2)
Early pregnancy (girls only)	16.2 (1.8)	23.7 (2.0)	1.5***	...	23.7 (1.6)	35.0 (2.2)	2.2***	...	35.1 (2.6)

Note. The unweighted n is 4586 cases. Percentages are weighted. Ratios are of reported percentages.
[a]Any violence in past year minus the multiple and persistent cases.
[b]At least three instances in past year of at least two types of violence from the following list: gang fights, strong-arm methods, carrying a hidden weapon, attacking someone, and hitting family or nonfamily members.
[c]Includes any polydrug use in the past year, weekly marijuana use, any binge drinking, or daily cigarette use.
[d]Minor theft, public disorder, begging, obscene phone calls, joyriding, shoplifting, truancy, and running away from home overnight.
[e]Arson, and acts of felony theft, such as breaking into a house or school, stealing a motor vehicle, or fencing stolen goods.
[f]Not enrolled in school and had not obtained a high school diploma or equivalent.
[g]Lowest third on scale combining grades and future academic intentions.
[h]Meeting the warning zone score on the MHI-5.[24]
*Groups are significantly different (*t* test, $P < .05$).
**Groups are significantly different (*t* test, $P < .01$).
***Groups are significantly different (*t* test, $P < .001$).

orientation, and to engage in different forms of problematic drug use; they were 3 times as likely to sell drugs or commit felonies.

Similar differences between the three groups emerged by gender, but the patterns of related problems were distinctly different (see Table 3). Males who were infrequently or persistently violent were 2 to 3 times as likely as their female counterparts to commit serious nonviolent felonies, whereas violent girls were 2 to 3 times as likely to suffer from poor mental health and to report having children. Persistently violent males were also more likely than their female counterparts to sell drugs and to be regular drinkers, while infrequently violent females were more likely than infrequently violent males to drop out of high school. With the exception of dropping out, these gender differences also appeared for persistent hitting (not shown).

Prevalence of Multiple-Problem Youth

Prevalence rates for the co-occurrence of violent behavior with other problems varied depending on how each problem was measured and which problems were included. Hence, we present weighted estimates of multiple-problem youth for both liberal and stringent definitions of each problem (Tables 4 and 5).

The liberal estimates (Table 4) are defined by any violence in the past year, any illicit drug use, dropping out of regular school (but possibly enrolled in a continuation or special school), poor mental health, and any nonviolent delinquency in the past year. Over half of the sample reported violence plus at least one other problem behavior; 21% reported violence plus three or more problem behaviors. The latter figure is similar to Dryfoos's estimate that approximately 25% of youth engaged in multiple high-risk behaviors, including drug and alcohol misuse, sexual activity, dropping out of school, and serious delinquent activities.[5]

Only 2% reported violence with no concurrent problems (liberal definitions). In contrast, almost all violent youth (91.3%) had also engaged in some type of nonviolent delinquency; three in four (72.7%) had also used illicit drugs; one in three (35.3%) also had poor mental health; and almost one quarter (24.5%) had dropped out of school.

The stringent estimates of multiple-problem youth reflect predatory violence in the past year, polydrug use, dropping out of regular and special/continuation schools, poor mental health, and any nonviolent felonies in the past year. Table 5 shows how these behaviors overlap: 19% reported predatory violence in conjunction with at least one other problem,

and about 4% reported predatory violence plus three or more other problems. However, less than 1% of the sample reported all five of these more serious behaviors simultaneously, and only 1.4% combined predatory violence with nonviolent felonies, polydrug use, and poor mental health. These estimates are closer to the findings of Elliot and colleagues that less than 1% of 15- to 21-year-olds were seriously delinquent, abused drugs, and had mental health problems.[4]

Boys were more likely than girls to be represented in almost all of the groups with multiple problems (data not shown). For example, males were more likely to report violent behavior plus one or more other problems (62.5% of boys vs 40.1% of girls in the liberal case; 27% of boys vs 10.5% of girls in the stringent case). The same pattern occurs for combinations of violence with at least two, three, or four other problems.

We also examined the conditional likelihood of each problem behavior, taking violence and other problems into account (Tables 4 and 5). Violent youth (liberal definition) who also used illicit drugs were more likely to drop out of school; that is, about 30% of those involved in both violence and illicit drug use also dropped out (11.9/39.1), whereas only 9% who were violent but had not used illicit drugs failed to complete high school (1.3/14.7). Conversely, dropping out increased the probability that violent youth would use illicit drugs, a not surprising result given the reciprocal relationship between drug use and school failure.[29] However, the presence of other problems besides violence did not add to the likelihood of poor mental health or of nonviolent delinquency.

Different patterns of conditional likelihoods emerged under the more stringent definitions of violence and other problems. Once predatory (serious) violence was accounted for, other problems did not substantially increase the likelihood of dropping out or of having poor mental health. For example, 25.7% of seriously violent youth who were also polydrug users had dropped out of school, in contrast to 19.3% of those who had not used drugs in combination. However, even when serious violence was accounted for, polydrug use increased the likelihood of nonviolent felony offending and vice versa.

TABLE 4—Violent High School Seniors and Dropouts with Multiple Problems under Liberal Problem Definitions (Weighted Percentages)

Any Violence, Liberal Criteria					
Any Violence[a]	Any Illicit Drug Use	School Dropout[b]	Poor Mental Health[c]	Any Nonviolent Delinquency[d]	% in Sample
x					1.9
x	x				0.7
x		x			0.1
x			x		0.6
x				x	7.3
x	x	x			0.5
x	x		x		0.4
x	x			x	17.2
x		x	x		0.1
x		x		x	0.7
x			x	x	3.6
x	x	x	x		0.4
x	x	x		x	6.4
x	x		x	x	8.9
x		x	x	x	0.4
x	x	x	x	x	4.6

Note. The unweighted n is 4586 cases; x indicates presence of problem. Summary: Any violence plus 1 other problem, 8.7%; plus 2 other problems, 22.5%; plus 3 other problems, 16.1%; plus 4 other problems, 4.6%. Total for any violence plus other problem or problems = 51.9%.

[a]Any occurrence in past year of gang fights, strong-arm methods, carrying a hidden weapon, attacking someone, or hitting family or nonfamily members.

[b]Students enrolled in continuation or special schools plus out-of-school students without high school diploma or equivalent.

[c]Meeting the warning-zone score on the MHI-5.[24]

[d]Misdemeanors (minor theft, public disorder, begging, obscene phone calls, joyriding, shoplifting, truancy, or running away from home overnight) and felonies (arson, breaking into a house or school, stealing a motor vehicle, or fencing stolen goods).

Discussion

Our analyses indicate that the majority of teenagers in our sample engaged in violence. In addition, nearly 25% had been involved in predatory violence, such as robbery, assault, and gang fighting, and about 20% qualified as persistently violent across two types of violent behavior. We also found that violent youth were considerably more likely than nonviolent youth to suffer from a range of public health and other problems. Violent teenagers had between 1.5 and 3 times the use rates for different kinds of drug use, with even more dramatic differentials for drug selling and committing a felony offense. They were also more likely to have poor academic orientation, to drop out of school, to suffer from poor mental health, and to commit minor delinquent offenses.

Although boys were more likely than girls to commit most violent acts, girls were just as likely as boys to strike out at family members. About 12% of girls had engaged in predatory violence; the same proportion had engaged in multiple and persistent violence.

Teenage girls also displayed different patterns of concurrent problems. Comparatively more violent girls than violent boys exhibited problems that were likely to affect personal relationships and life chances (poor mental health, becoming a parent, dropping out). Moreover, one in three persistently violent girls had been pregnant at least once, almost twice the rate for nonviolent girls. In contrast, more violent boys exhibited problems likely to affect the larger society and their own risk of arrest (drug selling and felony crimes).

Finally, we found that prevalence estimates of violent youth with multiple emotional and behavioral problems are extremely sensitive to how those behaviors are defined. Depending on the definitions, we estimate that from 4% to 20% or more of our sample could be defined as "multiple-problem youth."

These estimation differences are important because they also capture different patterns of multiple-problem behavior. For example, among youth who had engaged in any violence in the past year, illicit drug use was associated with an increased probability of dropping out of

TABLE 5—Violent High School Seniors and Dropouts under Stringent Problem Definitions (Weighted Percentages)

Predatory Violence, Stringent Criteria					
Predatory Violence[a]	Polydrug Use[b]	School Dropout[c]	Poor Mental Health[d]	Felony Nonviolent Delinquency[e]	% in Sample
x					4.2
x	x				2.5
x		x			0.6
x			x		2.4
x				x	1.7
x	x	x			0.7
x	x		x		1.4
x	x			x	3.1
x		x	x		0.8
x		x		x	0.6
x			x	x	1.3
x	x	x	x		0.7
x	x	x		x	0.9
x	x		x	x	1.4
x		x	x	x	0.3
x	x	x	x	x	0.6

Note. The unweighted n is 4586 cases; x indicates presence of problem. Summary: Predatory violence plus 1 other problem, 7.2%; plus 2 other problems, 7.9%; plus 3 other problems, 3.3%; plus 4 other problems, 0.6%. Total for predatory violence plus other problem or problems = 19%.

[a]Any occurrence in the past year of gang fights, strong-arm methods, carrying a hidden weapon, or attacking someone.

[b]Past-year use of alcohol, marijuana, or cocaine in combination with another drug.

[c]Only nonenrolled students without a diploma or equivalent.

[d]Meeting the warning-zone score on the MHI-5.[24]

[e]Occurrence in the past year of any of the following felonies: arson, breaking into a house or school, stealing a motor vehicle, or fencing stolen goods.

regular school. For the more seriously violent, however, drug use was linked with a higher probability of committing other, nonviolent felonies. Although substance abuse added to the behavioral problems of violent youth in both cases, dropping out and felonious acts have quite different implications for society.

Our estimates pertain to just one cohort of youth drawn from West Coast communities, and prevalence rates for these behaviors might differ in other periods and settings. Nevertheless, the high rates of both violence and multiple problem behaviors found in this study are supported by other analyses with youth from different communities and cohorts. Our liberal and stringent estimates for multiple-problem youth cover the range found in the literature,[4,5] and our estimates for drug use come within 1 or 2 percentage points of those in national surveys.[30] Our rates for males using strong-arm methods and engaging in gang fights are similar to those found in other studies,[4,6,31] but our estimates for carrying a hidden weapon (13.6%) are much lower than national estimates for weapon carrying when concealment is not specified (22.1%).[11] As in most studies, the estimates reflect self-reports, with no external source of validation. However, analyses of reported drug use (also a socially disapproved behavior) from this sample have been externally validated and shown to be highly accurate.[22]

These findings suggest that efforts to reduce youth violence should *not* be limited to adolescents whose behavior or community conditions have already identified them as high risk. A majority in our sample engaged in some form of violence in the past year, and these high rates appeared in both urban (58%) and nonurban (52%) areas.

This pervasiveness argues for addressing violence *across* school and community settings, but doing so in ways that reflect how adolescents differ in kind and degree of violence and in the problem behaviors that accompany it. For example, programs and policies aimed at curbing violence need to take into account the links between violence and other youth problems. In addition, for girls, the association between violence, early parenthood, and poor mental health raises serious concerns about the nature of the parenting and the environment such girls are likely to give their children. Programs for violent girls would necessarily have different emphases than programs aimed at violent boys who have a propensity to commit felonies or sell drugs. Our results also suggest that program components for additional behavioral and emotional problems should be reserved for those who need them most: high-risk youth whose behavior (persistent violence, difficulties in school, getting pregnant, etc.) indicates a need for a multifaceted approach.

Little is known about how best to meet the needs of adolescents with multiple problems, much less how to prevent these problems from occurring. Shotgun approaches that try to ward off several problems at once have had little impact,[2] particularly when delivered to all youth in a school cohort. However, few alternative models have been considered. Sequentially designed prevention efforts that target different behaviors at the age of greatest vulnerability for each of the behaviors make logical sense but have not been evaluated. Programs in communities or schools with high levels of violence are likely to require more intensive efforts and a broader reach than those implemented in less violent settings. Future research is needed to evaluate (1) different approaches to keeping adolescents from developing multiple problems and (2) different strategies for reducing the negative consequences of those problems once they have emerged. □

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